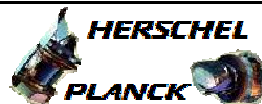


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 Author: R. Biggins



## Procedure Summary

### Objectives

The objective of this procedure is to recycle the Dilution Cooler

### Summary of Constraints

n/a

### Spacecraft Configuration

#### Start of Procedure

SPIRE is in REDY mode

#### End of Procedure

SPIRE is in REDY mode

### Reference File(s)

#### Input Command Sequences

#### Output Command Sequences

HFSCREC

### Referenced Displays

ANDs	GRDs	SLDs
SA_6_559		
SA_7_559		

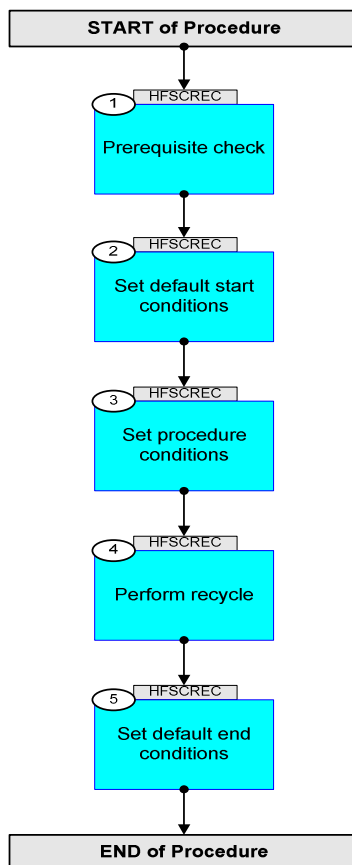
### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
07/08/2007		1	Created	R. Biggins	
15/01/2008		2	Update due to initial testing against the simulator: 2 - TCs updated due to new DB	R. Biggins	

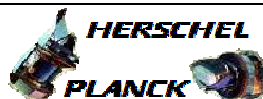
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## Procedure Flowchart Overview



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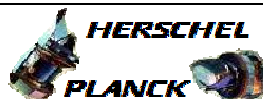
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
<b>Beginning of Procedure</b>				
HFSCREC Recycle cooler				
SSID :				
1		Prerequisite check		Next Step: 2
		Verify Telemetry MODE SM00M500	= REDY	AND=SA_6_559
2		Set default start conditions		Next Step: 3
	ET=+00.00.00 UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC003500  0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC001500  80010001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC003500  1 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC000500  b0000000 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP                      SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500  0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID                      SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500  80000000 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP                      SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500  0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID                      SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500  80020001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP                      SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500  1 <hex>	
3		Set procedure conditions		Next Step: 4

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	RESET_DRCU_COUNTERS  RESET_DRCU_COUNTERS  TC Control Flags :  SSID : 370  GBM IL DSE --- -- --	SCD00505	
	ET=+00.00.01 UT=+00.00.01	SET_OBSID  SET_OBSID  Command Parameter(s) : OBSERVATION_ID SP00N500  TC Control Flags :  SSID : 370  GBM IL DSE --- -- --	SC000500  OBS_ID	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP  SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP SP03N500  TC Control Flags :  SSID : 370  GBM IL DSE --- -- --	SC003500  0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID  SET_BBID  Command Parameter(s) : BUILDING_BLOCK_ID SP01N500  TC Control Flags :  SSID : 370  GBM IL DSE --- -- --	SC001500  80000000 <hex>	
	ET=+00.00.03 UT=+00.00.03	SET_OBS_MODE  SET_OBS_MODE  Command Parameter(s) : OBSERVING_MODE SP02N500  TC Control Flags :  SSID : 370  GBM IL DSE --- -- --	SC002500  600 <hex>	
		Verify Telemetry  MODE SM00M500	= CREC	AND=SA_7_559
4		Perform recycle		Next Step: 5
		The following command (Run_VM) will take about 151 minutes to execute		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch																																																																								
	ET=+00.00.00 UT=+00.00.00	RUN_VM  Command Parameter(s) : <table border="0"> <tr><td>TABLEID_RUNVM</td><td>SPV0N500</td><td>53 &lt;hex&gt;</td></tr> <tr><td>INDEX_RUNVM</td><td>SPV1N500</td><td>0 &lt;hex&gt;</td></tr> <tr><td>N_RUNVM</td><td>SPV2N500</td><td>21 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>3563 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>0 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>49083 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>2597 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>36078 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>1125 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>36041 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>712 &lt;dec&gt;</td></tr> </table> <table border="0"> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>1125 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>36041 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>32459 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>46504 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>61388 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>2602 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>10 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>30 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>60 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>30 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>60 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>60 &lt;dec&gt;</td></tr> <tr><td>DATA_RUNVM</td><td>SPV3N500</td><td>150 &lt;dec&gt;</td></tr> </table> TC Control Flags :  GBM IL DSE --- -- ---  SSID : 370	TABLEID_RUNVM	SPV0N500	53 <hex>	INDEX_RUNVM	SPV1N500	0 <hex>	N_RUNVM	SPV2N500	21 <dec>	DATA_RUNVM	SPV3N500	3563 <dec>	DATA_RUNVM	SPV3N500	0 <dec>	DATA_RUNVM	SPV3N500	49083 <dec>	DATA_RUNVM	SPV3N500	2597 <dec>	DATA_RUNVM	SPV3N500	36078 <dec>	DATA_RUNVM	SPV3N500	1125 <dec>	DATA_RUNVM	SPV3N500	36041 <dec>	DATA_RUNVM	SPV3N500	712 <dec>	DATA_RUNVM	SPV3N500	1125 <dec>	DATA_RUNVM	SPV3N500	36041 <dec>	DATA_RUNVM	SPV3N500	32459 <dec>	DATA_RUNVM	SPV3N500	46504 <dec>	DATA_RUNVM	SPV3N500	61388 <dec>	DATA_RUNVM	SPV3N500	2602 <dec>	DATA_RUNVM	SPV3N500	10 <dec>	DATA_RUNVM	SPV3N500	30 <dec>	DATA_RUNVM	SPV3N500	60 <dec>	DATA_RUNVM	SPV3N500	30 <dec>	DATA_RUNVM	SPV3N500	60 <dec>	DATA_RUNVM	SPV3N500	60 <dec>	DATA_RUNVM	SPV3N500	150 <dec>	SCV00500	
TABLEID_RUNVM	SPV0N500	53 <hex>																																																																										
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DATA_RUNVM	SPV3N500	49083 <dec>																																																																										
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DATA_RUNVM	SPV3N500	60 <dec>																																																																										
DATA_RUNVM	SPV3N500	150 <dec>																																																																										
		Wait approximately 151 minutes - TM to verify end of recycle TBD																																																																										
	ET=+02.30.59 UT=+02.30.59	SET_OBS_MODE  Command Parameter(s) : <table border="0"> <tr><td>OBSERVING_MODE</td><td>SP02N500</td><td>200 &lt;hex&gt;</td></tr> </table> TC Control Flags :  GBM IL DSE --- -- ---  SSID : 370	OBSERVING_MODE	SP02N500	200 <hex>	SC002500																																																																						
OBSERVING_MODE	SP02N500	200 <hex>																																																																										
		Verify Telemetry  <table border="0"> <tr><td>MODE</td><td>SM00M500</td><td>= REDY</td></tr> </table>	MODE	SM00M500	= REDY		AND=SA_6_559																																																																					
MODE	SM00M500	= REDY																																																																										
5		Set default end conditions		Next Step: END																																																																								

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP                      SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500  0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID                      SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500  80030001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP                      SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500  1 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID                      SP00N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC000500  b0000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP                      SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500  0 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	SET_BBID  SET_BBID  Command Parameter(s) : BUILDING_BLOCK_ID SP01N500  TC Control Flags :  GBM IL DSE -----  SSID : 370	SC001500  80000000 <hex>	
End of Procedure				